

Abstract of the disclosure

A software enabled control method that allows dynamic configuration of the operation of a control system. The configuration can be done in a factory calibration or while the system is running in the field in communication with a Host computer. The Host computer may communicate through a serial or parallel I/O. Because the control system has an expert system with built-in mathematical models and intelligence for the system with luminent devices, once the software enabled control system has been configured and given set points for desired target performance, it will regulate performance of the system with a luminent device in a manner that does not require intervention of the Host computer. The system contains performance optimization monitors based on predetermined criteria. The results of the monitors are available to the user or a Host computer through one of the available I/Os. The present invention allows flexibility to address various luminent devices using the same software architecture and similar algorithms. The present invention has a control system that can be configured to address a specific luminent device allowing for compensation of manufacturing. The control system also has algorithms that can be dynamically changed in light of changing environmental conditions.